

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of claims:

1. (Currently Amended) An electrochemical battery comprising:

a stack of individually sealed bipolar wafer cells electrically connected in series, the cells being of a chemistry that generates gas in over charge and/or over discharge, each cell being sealed in an envelope having an area to expand in thickness in response to pressure generated within the respective cell, the expandable area of each ~~cell~~ envelope being aligned with a corresponding expandable area of at least one adjacent cell and containing a spacer providing the cell with a uniform thickness in an unexpanded state; and

a pressure sensor responsive to a force transmitted through the stack via the expandable areas of the cells, the force to be created by pressure generated in at least one cell in the stack of bipolar cells.

2. (Previously Presented) The electrochemical battery of claim 1, wherein the pressure sensor is coupled to a cell at the end of the stack of bipolar wafer cells.

3. (Previously Presented) The electrochemical battery of claim 1, the force is to be created by pressure generated in more than one cell in the stack of bipolar cells.

4. (Currently Amended) The electrochemical battery of claim 1, wherein each ~~cell includes a cell envelope~~, the expandable area comprises ~~comprising~~ an extension of the ~~cell~~ envelope of the respective cell.

5. (Previously Presented) The electrochemical battery of claim 1, wherein the expandable area of each cell comprises a corner of the cell.

6. (Previously Presented) The electrochemical battery of claim 1, wherein each cell includes multiple areas to expand in response to pressure generated within the respective cell, each

expandable area of each cell being aligned with a corresponding expandable area of at least one adjacent cell.

7. (Previously Presented) The electrochemical battery of claim 1, wherein the pressure sensor comprises:

means for deflecting in response to the force to be transmitted through the stack via the expandable areas of the; and

a switch operatively coupled to the means for deflecting, deflection of the means for deflecting to actuate the switch.

8. (Previously Presented) The electrochemical battery of claim 1, wherein the pressure sensor comprises a metal strip including a bonded strain gauge, the metal strip to receive the force to be transmitted through the stack via the expandable areas of the cells.

9. (Previously Amended) The electrochemical battery of claim 8, further comprising:

a retaining strip; and

a tie rod coupled to the retaining strip and the metal strip to retain the stack of bipolar wafer cells, the expandable areas of the cells being retained between the metal strip including the bonded strain gauge and the retaining strip.

10. (Previously Presented) The electrochemical battery of claim 8, further comprises:

a circuit to power the strain gauge and to generate an output signal as a function of deflection of the strain gauge, the signal to control a flow of electrical current through the stack.

11. (Previously Presented) The electrochemical battery of claim 10, wherein the circuit comprises:

a constant voltage power supply, to be powered by power from the stack of bipolar wafer cells, to power the strain gauge;

an amplifier to increase an amplitude of the signal to be output from the strain gauge;

a voltage comparator to compare the amplified signal of the strain gauge output with a threshold value; and

a switch coupled to an output of the comparator, the switch to interrupt current flow through the stack of bipolar wafer cells if the amplified signal of the strain gauge output reaches the threshold value.

12. (Original) The electrochemical battery of claim 11, wherein the switch is a relay.

13. (Original) The electrochemical battery of claim 11, wherein the switch is a solid state switch.

14. (Original) The electrochemical battery of claim 11, wherein the switch is field effect transistor (FET).

15. (Previously Presented) The electrochemical battery of claim 1, further comprising:

means for terminating battery charge and discharge based on the force received by said pressure sensor.

16. (Previously Presented) The electrochemical battery of claim 1, wherein the pressure sensor it to control electrical current flow through the stack to interrupt battery charge or discharge until the force transmitted through the stack via the expandable areas of the cells decreases to a threshold level.

17. (Previously Presented) The electrochemical battery of claim 1, wherein the pressure sensor is to control electrical current flow through the stack to reduce a rate of charge and discharge to a threshold level.

18-32. (Canceled).

33. (Previously Presented) The electrochemical battery of claim 7, wherein the means for deflecting exhibits a spring constant of deflection.

34. (Previously Presented) The electrochemical battery of claim 33, wherein the spring constant of deflection is adjustable.

35. (Previously Presented) The electrochemical battery of claim 33, wherein the means for deflecting comprises a metal foil strip or a spring.

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36. (Previously Presented) The electrochemical battery of claim 7, wherein actuation of the switch is to control a flow of electrical current through the stack.

37. (Previously Presented) The electrochemical battery of claim 1, wherein the pressure sensor comprises:

a switch positioned to receive the force to be transmitted through the stack via the expandable areas of the cells, the force to actuate the switch.

38. (Previously Presented) The electrochemical battery of claim 37, wherein actuation of the switch is to control a flow of electrical current through the stack.

39. (New) The electrochemical battery of claim 1, wherein the chemistry of each cell is an aqueous chemistry.

40. (New) The electrochemical battery of claim 39, wherein the aqueous chemistry is alkaline.

41. (New) The electrochemical battery of claim 1, wherein the chemistry of each cell is a non-aqueous chemistry.

42. (New) The electrochemical battery of claim 1, wherein the area of each envelope to expand in thickness in response to pressure comprises a flexible material.

43. (New) The electrochemical battery of claim 42, wherein the flexible material is a plastic film.

44. (New) The electrochemical battery of claim 1, wherein the envelope of each cell comprises a flexible material.

46. (New) The electrochemical battery of claim 45, wherein the flexible material is a plastic film.

47. (New) The electrochemical battery of claim 46, wherein within each cell, a positive current collector and a negative current collector, each comprising a metal foil, are laminated to opposing inside faces of the envelope of the respective cell.